



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

*Handwritten initials*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,147	06/20/2001	Takeshi Aikiyo	FP 672- US(CIP)/PCT	5121

26381 7590 08/26/2003  
LACASSE & ASSOCIATES, LLC  
1725 DUKE STREET  
SUITE 650  
ALEXANDRIA, VA 22314

EXAMINER

JACKSON, CORNELIUS H

ART UNIT PAPER NUMBER

2828

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/884,147

Applicant(s)

AIKIYO ET AL.

Examiner

Cornelius H. Jackson

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

*Paul IP*

PAUL IP

SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 2828

## DETAILED ACTION

### *Acknowledgment*

1. Acknowledgment is made that applicant's Amendment, filed on 31 December 2002, has been entered. Upon entrance of the Amendment, claims 2, 5, 20-22 and 36 were amended, claim 4 was cancelled and claim 36 was added. Claims 1-3 and 5-36 are now pending in the current application.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2828

3. Claims 1-3 and 5-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,385,222 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same inventive scope. See examples below where the claims are compared. The differences in Applicant claims are shown in *italics* and the difference in the claims of U.S. Patent No. 6,385,222 B1 are shown in (parenthesis).

Claim 1. A semiconductor laser module comprising: a semiconductor laser element(s); a thermo-module for adjusting the temperature of the semiconductor laser element(s) in *dependence upon* (compliance with) an amount of current flowing into said thermo-module; and, *at least one of* an overcurrent limiting circuit to *suppress* (prevent) an overcurrent flowing into the thermo-module and an overvoltage limiting circuit to suppress application of an overvoltage across said thermo-module.

*Claim 2. (Claim 1) An optical fiber optically coupled for receiving (to a) laser light emitted from the semiconductor laser element(s).*

Claim 3, *a reverse current flow prevention circuit for preventing current from flowing into said thermo-module in a direction opposite to that of a drive current of said thermo-module (a bypass path is provided in a current flow channel which causes a current in the heating direction to flow in the thermomodule, said bypass path, resistor and diode shunt supply a current in the heating direction to the thermomodule).*

*Claim 5. (Claim 3) a surge suppression circuit for preventing surge current from flowing into said thermo-module (a bypass path constitute an overcurrent limiting means for reducing the flow of an overcurrent in the heating direction to the thermomodule).*

*Claim 6. (Claim 2) the thermo-module comprises at least an element for alternatively heating and cooling in dependence upon a direction of current flowing therein, and wherein the overcurrent limiting circuit is electrically coupled with the at least an element to divert current flowing thereto and oriented for causing heating (is constructed so as to change a heating action and a cooling action in compliance with the orientation of a current flow; and said overcurrent limiting means is provided in a current flow channel which causes a current in the heating direction, which heats said thermomodule, to flow into the thermomodule).*

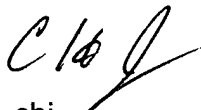
*Claim 7. (Claims 1 and 3) the overcurrent limiting circuit includes a diode disposed serially to the thermo-module and oriented for allowing current to flow therethrough when the flowing current is oriented in a direction for causing cooling of thermo-module; and a current limiting circuit element coupled in parallel to the thermo-module (a resistor intervenes in said bypass path, and at the same time, a diode in which the current direction for heating is made into a forward direction, is provided in series with said resistor; an overcurrent limiting circuit connected in parallel to the thermomodule).*

**Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703) 306-5981. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



chj  
August 22, 2003

  
PAUL IP  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800